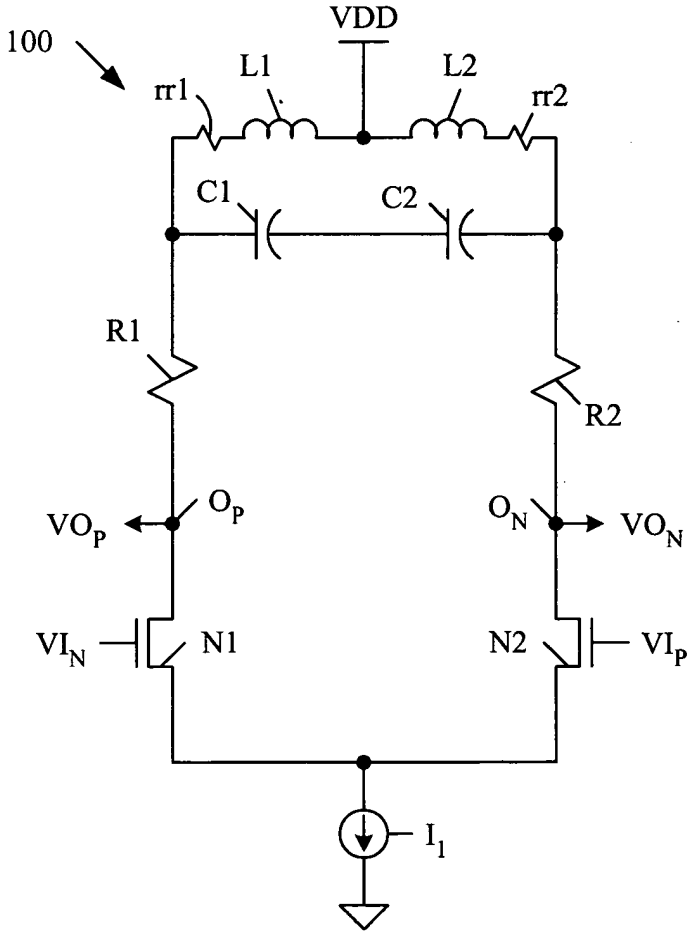

FIG. 1
(PRIOR ART)

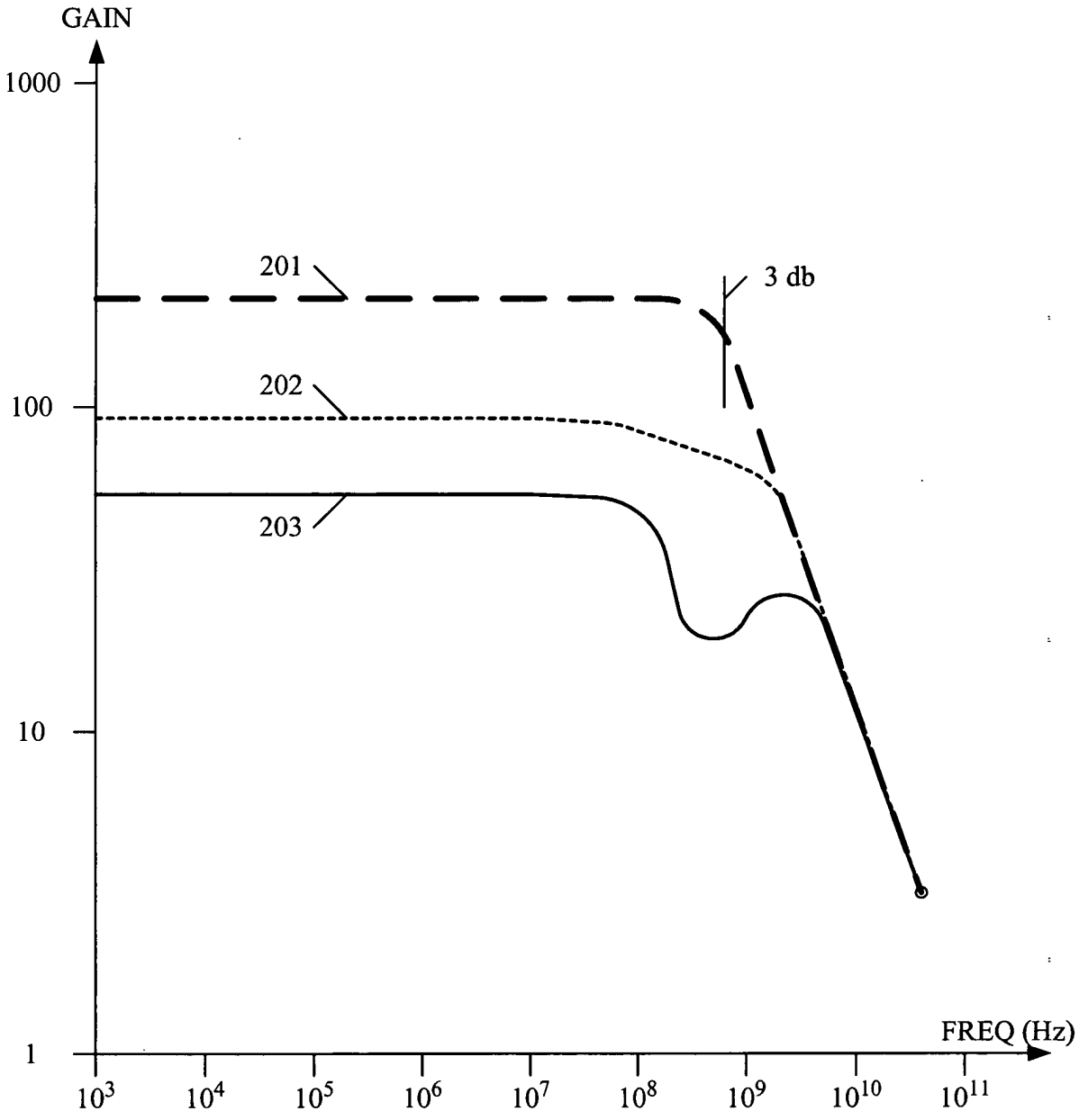

FIG. 2
(PRIOR ART)

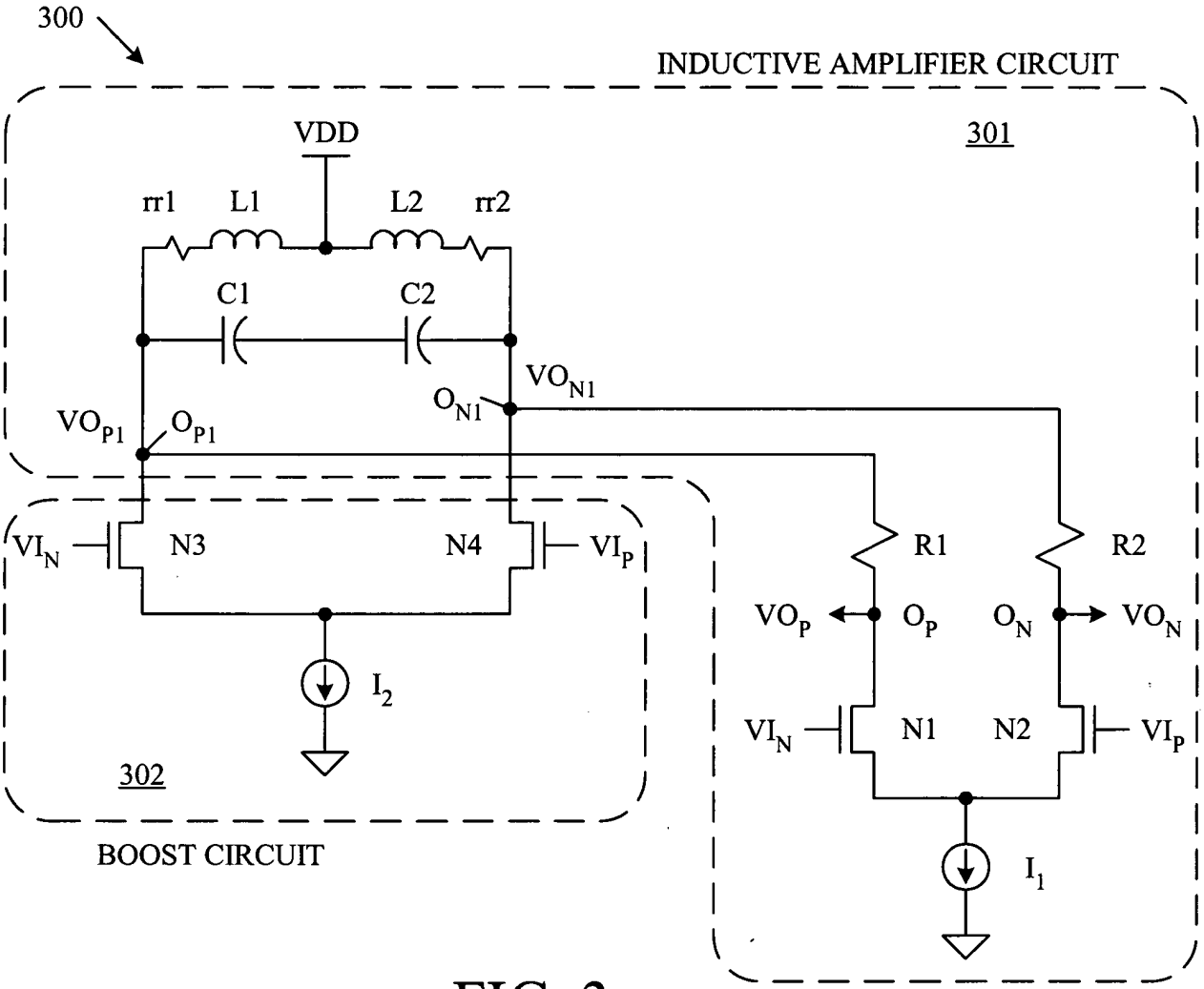
300
INDUCTIVE AMPLIFIER CIRCUIT
VDD
301
rr1
L1
L2
rr2
C1
C2
VO_N1
O_N1
VO_P1
O_P1
VI_N
N3
N4
VI_P
R1
R2
VO_P
O_P
O_N
VO_N
I_2
VI_N
N1
N2
VI_P
302
I_1
BOOST CIRCUIT

FIG. 3

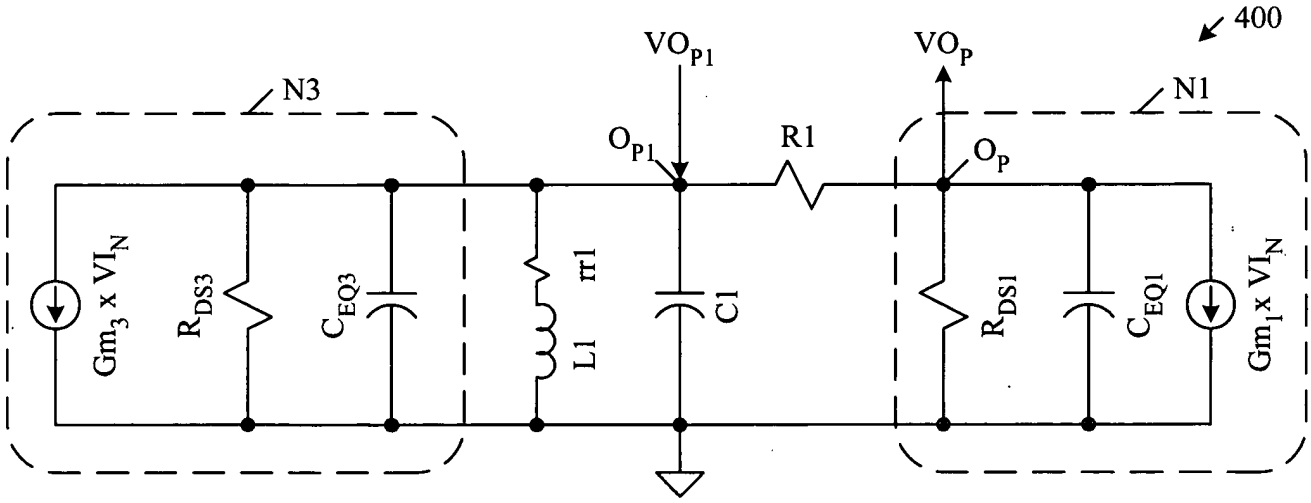
400
VO_P1
VO_P
N3
N1
O_P1
R1
O_P
Gm_3 x VI_N
R_DS3
C_EQ3
rr1
L1
C1
R_DS1
C_EQ1
Gm_1 x VI_N

FIG. 4A

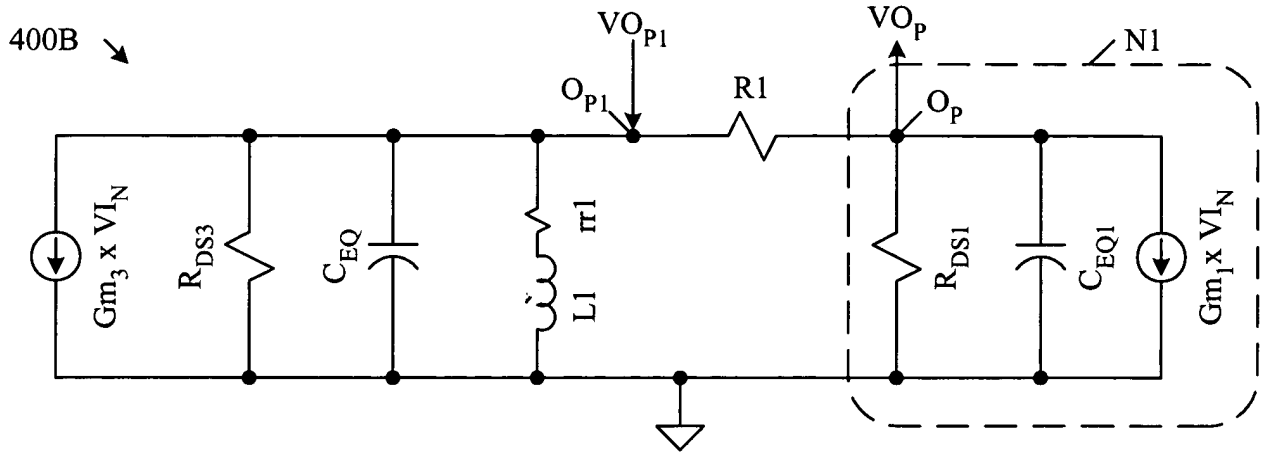
400B
VO_P1
VO_P
N1
O_P1
R1
O_P
Gm_3 x VI_N
R_DS3
C_EQ
rl1
L1
R_DS1
C_EQ1
Gm_1 x VI_N

FIG. 4B

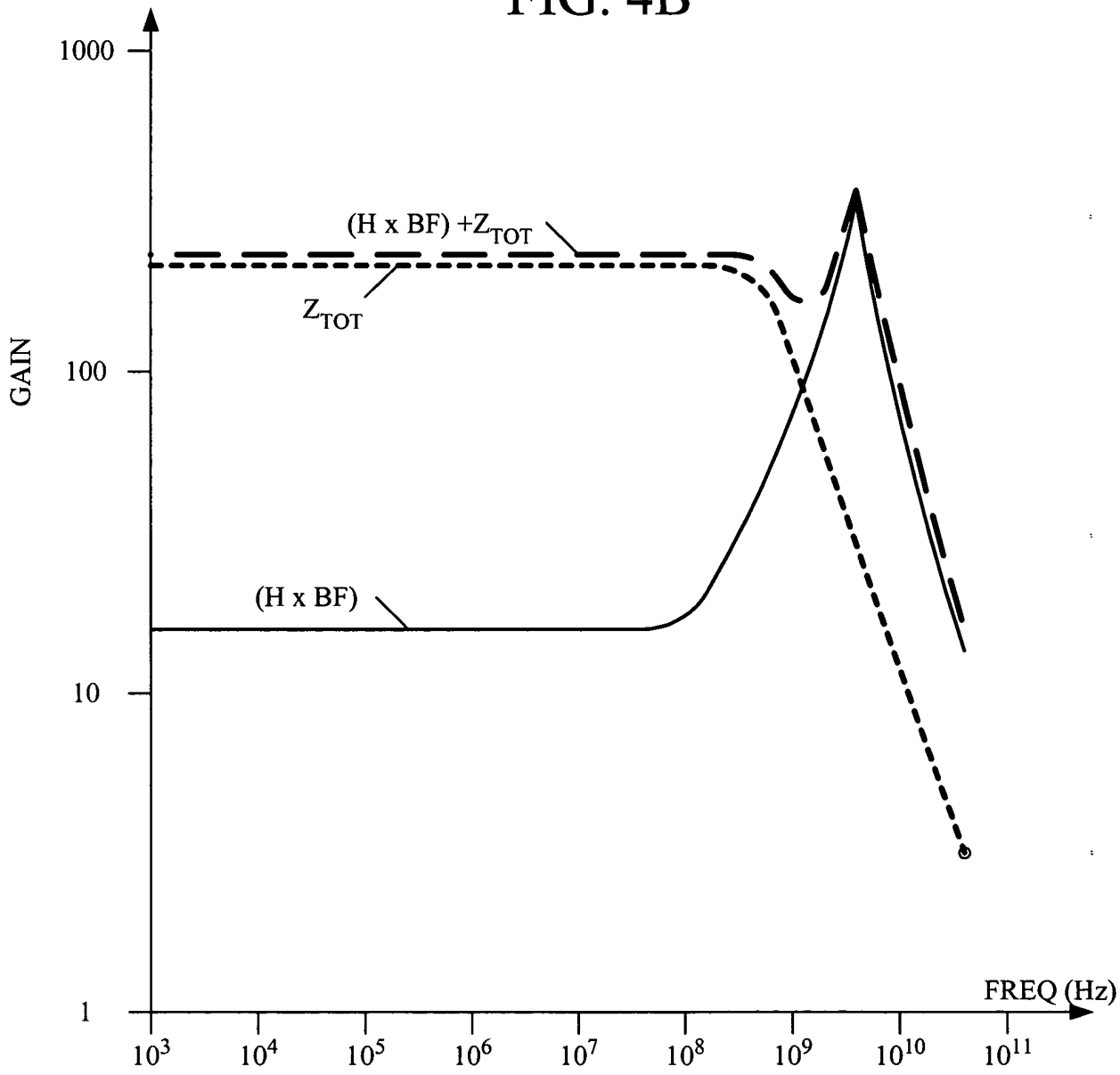
1000
100
10
1
GAIN
(H x BF) +Z_TOT
Z_TOT
(H x BF)
FREQ (Hz)
10^3
10^4
10^5
10^6
10^7
10^8
10^9
10^10
10^11

FIG. 5

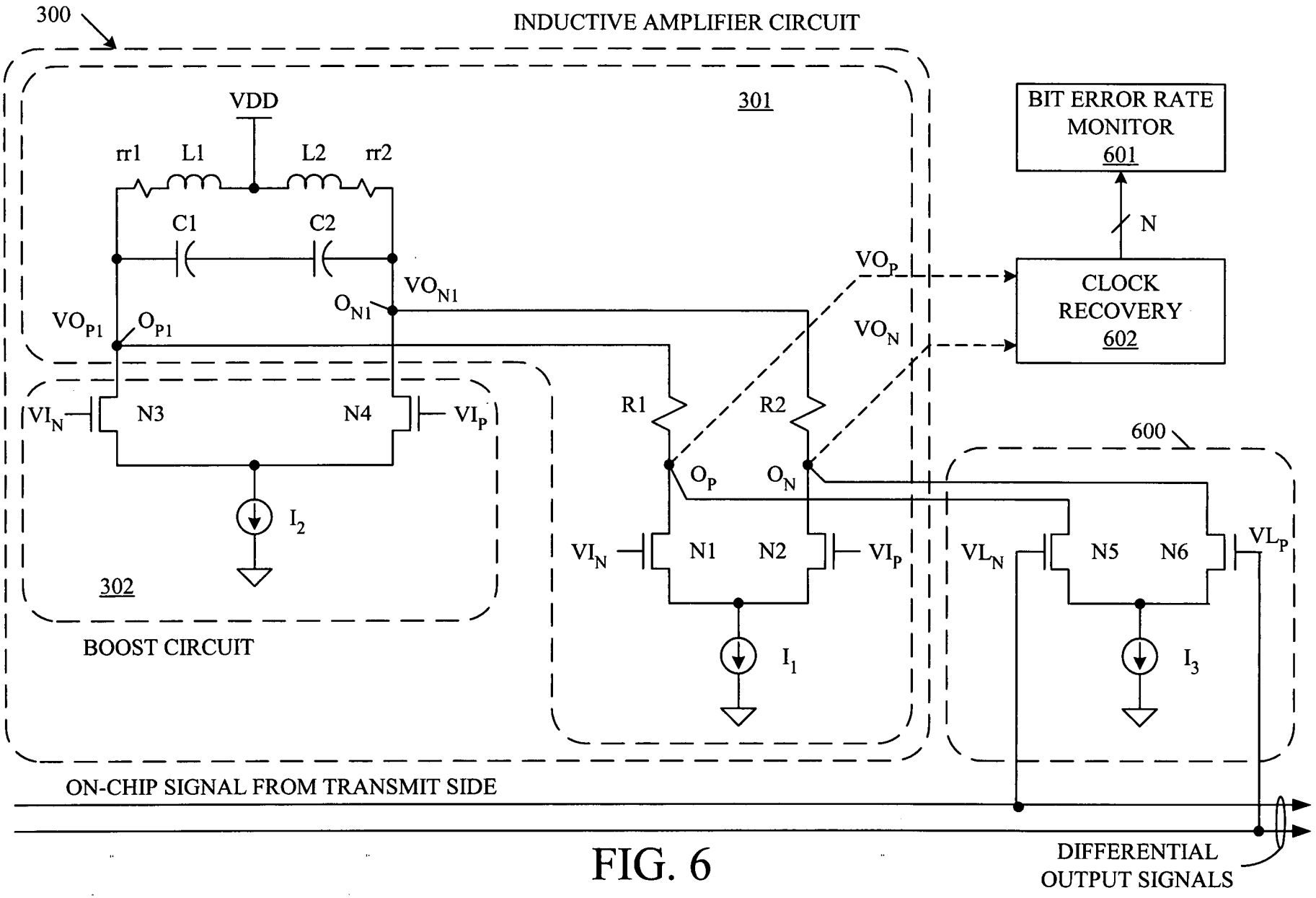
300
INDUCTIVE AMPLIFIER CIRCUIT
301
VDD
rr1
L1
L2
rr2
C1
C2
VO_N1
O_N1
VO_P1
O_P1
VI_N
N3
N4
VI_P
I_2
302
BOOST CIRCUIT
R1
R2
VO_P
VO_N
O_P
O_N
VI_N
N1
N2
VI_P
I_1
BIT ERROR RATE MONITOR
601
N
CLOCK RECOVERY
602
600
VL_N
N5
N6
VL_P
I_3
ON-CHIP SIGNAL FROM TRANSMIT SIDE
DIFFERENTIAL OUTPUT SIGNALS

FIG. 6